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## FACSIMILE COVER PAGE

TO: Examiner Devon Kramer

FACSIMILE #: 703-308-3519

FROM: Thomas D. Bratschun

DATE: January 3, 2002

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Serial No. 09/685,284  
Attorney Docket: AVID.13-2

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: LUMPKIN, ET AL.

SERIAL NO.: 09/685,284

FILED: OCTOBER 10, 2000

TITLE: CABLE FEED FOR A MECHANICAL  
BALL BEARING DISC BRAKE

EXAMINER: KRAMER, D.

ART UNIT: 3613

CONFIRMATION NO.: 4451

VIA FACSIMILE  
703-308-3519Assistant Commissioner for Patents  
Washington, D.C. 20231

## AMENDMENT UNDER 37 CFR § 1.112

Sir:

Applicant responds to the final Office Action dated December 21, 2001, as follows:

## IN THE CLAIMS:

17. (Twice Amended) A cable actuated mechanical disc brake caliper comprising:  
a caliper housing;  
a cable guide rigidly fixed to the housing, the cable guide having a cable receiving bore  
extending along a guide axis which is fixed relative to the housing for axially receiving a cable;  
a lever arm pivotably attached to the caliper housing for pivoting about a pivot axis, the  
lever arm being operatively associated with a brake pad to move the brake pad between a  
retracted and an extended position as the lever arm is pivoted in a first direction from a non-  
actuated position to a fully actuated position, the lever arm including a cable clamp radially  
spaced from the pivotal attachment for fixedly attaching a cable to the lever arm in a select  
orientation relative to the lever arm at an attachment point, the attachment point being essentially  
coincident with the guide axis with the cable arm in the fully actuated position; and  
a guide surface curved about the pivot axis having a first portion attached to the lever arm  
with the attachment point essentially coincident therewith and a second portion circumferentially  
spaced from the first portion, the second portion extending from the first portion toward the cable

## CERTIFICATE OF FACSIMILE TRANSMISSION

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on January 3, 2002

Signature:

Name:

Elizabeth A. McArthur

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guide and the second portion being essentially tangent to the guide axis with the lever arm in the non-actuated position.

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10 (Amended) A cable actuated mechanical disc brake caliper comprising:  
a caliper housing;

a cable guide rigidly fixed to the housing, the cable guide having a cable receiving bore extending along a guide axis which is fixed relative to the housing for axially receiving a cable;

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a lever arm pivotably attached to the caliper housing for pivoting about a pivot axis, the lever arm being operatively associated with a brake pad to move the brake pad between a retracted and an extended position as the lever arm is pivoted in a first direction from a non-actuated position to a fully actuated position, the lever arm including a cable clamp radially spaced from the pivotal attachment for fixedly attaching a cable to the lever arm in a select orientation relative to the lever arm at an attachment point; and

a guide surface curved about the pivot axis having a first portion attached to the lever arm with the attachment point essentially coincident therewith and a second portion circumferentially spaced from the first portion, the second portion extending from the first portion toward the cable guide and the second portion being essentially tangent to the guide axis with the lever arm in the non-actuated position.

REMARKS:

Claims 2-17 are at issue. Claims 1-5, 8, 10-13 and 16 stand rejected under 35 USC § 103(a) as being unpatentable over Huang in view of Tosdale and Toyomasu in view of Tosdale. Claims 6, 7, 9, 14, 15 and 17 have been indicated as being allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

The undersigned wishes to thank Examiner Kramer and his Supervisor, Mac Graham, for the courtesy extended in the telephonic interview of January 2, 2002, which was attended by the undersigned and inventor Wayne R. Lumpkin. During the course of this interview, Tosdale, U.S. Patent No. 5,191,866; Carre, U.S. Patent No. 4,582,177; Toyomasu, U.S. Patent No. 3,765,511 and Huang, U.S. Patent No. 6,230,850 were discussed. Examiner Kramer proposed amending independent claims 2 and 10 to recite the second portion of the curved guide surface extending from the first portion toward the cable guide so as to more clearly recite the claimed structure and to define over the art of record. Applicant proposed to amend the claim to clarify that the guide axis is fixed relative to the housing.

By this amendment, Applicant adds the clarifying language suggested by Examiner Kramer and proposed by Applicant and now believes independent claims 2 and 10, and all claims depending therefrom, are now in condition for allowance.

Also discussed with Examiner Kramer was the filing of a Supplemental Declaration, which is enclosed herewith, for the purpose of further elaborating on known competing mechanical disc brakes incorporating the structure recited in claims 2 and 10. This Declaration sets forth that Hayes Disc Brake showed a brake incorporating these claimed features at the September 1999 Interbike Convention in Las Vegas, Nevada, which was also the first time the Avid mechanical disc brake including the claimed elements was publicly shown. While Examiner Kramer expressly states in the final Office Action that the evidence presented in the Declaration Under 37 CFR § 1.132 filed November 11, 2001, "is not relevant to the issue of nonobviousness of the claimed subject matter and provides no objective evidence thereof," Applicant wishes to clarify the record with respect to the introduction of infringing disc brakes by others, namely Hayes Disc Brake, and the first public disclosure of the Avid disc brake.

Entry of the above-amended claims and the enclosed Supplemental Declaration, reconsideration of the claims in their amended form, allowance of this application and prompt issuance of a Notice of Allowance are all respectfully requested.

This constitutes a request for any needed extension of time and an authorization to charge all fees therefore to deposit account No. 19-5117, if not otherwise specifically requested. The undersigned hereby authorizes the charge of any fees created by the filing of this document or any deficiency of fees submitted herewith to be charged to deposit account No. 19-5117.

Respectfully submitted,



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January 3, 2002

cc: Wayne Lumpkin  
S:\CLIENT FOLDERS\AVID\13\13-2\AMENDMENT AFTER FINAL.DOC

Marked up version showing changes to claims under 37 C.F.R. § 1.121(c)

2. (Twice Amended) A cable actuated mechanical disc brake caliper comprising:  
a caliper housing;

a cable guide rigidly fixed to the housing, the cable guide having a cable receiving bore extending along a guide axis which is fixed relative to the housing for axially receiving a cable;

a lever arm pivotably attached to the caliper housing for pivoting about a pivot axis, the lever arm being operatively associated with a brake pad to move the brake pad between a retracted and an extended position as the lever arm is pivoted in a first direction from a non-actuated position to a fully actuated position, the lever arm including a cable clamp radially spaced from the pivotal attachment for fixedly attaching a cable to the lever arm in a select orientation relative to the lever arm at an attachment point, the attachment point being essentially coincident with the guide axis with the cable arm in the fully actuated position; and

a guide surface curved about the pivot axis having a first portion attached to the lever arm with the attachment point essentially coincident therewith and a second portion circumferentially spaced from the first portion, the second portion extending from the first portion toward the cable guide and the second portion being essentially tangent to the guide axis with the lever arm in the non-actuated position.

10. (Amended) A cable actuated mechanical disc brake caliper comprising:  
a caliper housing;

a cable guide rigidly fixed to the housing, the cable guide having a cable receiving bore extending along a guide axis which is fixed relative to the housing for axially receiving a cable;

a lever arm pivotably attached to the caliper housing for pivoting about a pivot axis, the lever arm being operatively associated with a brake pad to move the brake pad between a retracted and an extended position as the lever arm is pivoted in a first direction from a non-actuated position to a fully actuated position, the lever arm including a cable clamp radially spaced from the pivotal attachment for fixedly attaching a cable to the lever arm in a select orientation relative to the lever arm at an attachment point; and

a guide surface curved about the pivot axis having a first portion attached to the lever arm with the attachment point essentially coincident therewith and a second portion circumferentially spaced from the first portion, the second portion extending from the first portion toward the cable guide and the second portion being essentially tangent to the guide axis with the lever arm in the non-actuated position.